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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/449,649  | 11/30/1999  | JOSEPH J. NAJDA      | NAJDA-2-8-1         | 6532             |
| 30594   | 7590        | 07/12/2005           | EXAMINER            |                  |
| HARNESS, DICKEY & PIERCE, P.L.C.<br>P.O. BOX 8910<br>RESTON, VA 20195 |             |                      | RYMAN, DANIEL J     |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2665                |                  |

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/449,649

Applicant(s)

NAJDA ET AL.

Examiner

Daniel J. Ryman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 27-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 3/10/2005 have been fully considered but they are not persuasive. On pages 6-8 of the Response, Applicant asserts that Naohiro discloses signal insertion rather than signal replacement. Examiner, respectfully, disagrees. As Applicant admits on page 8, lines 9-11, "Naohiro is directed to selecting a better of two signals in an ATM ring network." Specifically, Naohiro teaches using an apparatus "to execute a switching to a signal closer to normality out of the plurality of received signals" (col. 3, line 67-col. 4, line 1). Thus, Naohiro discloses receiving multiple signals and switching between the multiple signals to obtain a single signal comprising the components of each of the plurality of signals that are closest to normality. Here, Examiner equates the generation of the single signal with "signal replacement" since portions of a signal that are not "closest to normality" are replaced with portions from another signal that are "closest to normality." As such, Examiner maintains that Naohiro renders the claim limitation "replacing less than all of the first plurality of components" obvious.

2. Applicant further argues on pages 8-9 that Naohiro does not disclose further limitations; however, Applicant asserts that Naohiro does not teach each of these limitations because Naohiro does not teach signal replacement. Examiner submits that Naohiro does teach signal replacement, as outlined above. As such, Examiner maintains that the claims are obvious given the cited prior art.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 27-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naohiro (USPN 6,317,414), of record.

5. Regarding claims 27, 38, and 43, Naohiro discloses a remote terminal in an asynchronous transfer mode network (col. 3, lines 21-29), comprising: a first path (ref. 5-2: VPI1) for receiving a first cell (signal) with a first plurality of components (Fig. 1; col. 5, line 66-col. 6, line 28; and col. 6, lines 40-58) where Applicant defines "cell" to be an information component (pg. 13, lines 5-8); a second path (ref. 5-3: VPI2) for receiving a second cell (signal) with a second plurality of components (Fig. 1; col. 5, line 66-col. 6, line 28; and col. 6, lines 40-58); first multiplexers (network interface multiplexers) for routing received first and second cells (signals) to and from a user interface (col. 7, line 43-col. 8, line 7), the user interface for selecting less than all of the first plurality of components in the first signal in place of less than all of the second plurality of components in the second signal (ref. 5-8 and col. 7, line 43-col. 8, line 7) where the user interface package selects whichever portion of the first or the second signal is closest to normality in order to form the output signal (ref. 5-8 and col. 7, line 43-col. 8, line 7).

Naohiro does not expressly disclose in the primary embodiment that the first multiplexers are a single multiplexer. However, Naohiro does disclose that the outputs of the first multiplexers can be combined using a single multiplexer such that there is only one input to the user interface (col. 8, lines 16-22). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a single multiplexer for routing received first and second cells to and from a user interface in order to have only a single input for the user interface.

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Naohiro does not expressly disclose that the user interface is an asynchronous feeder multiplexer where the asynchronous feeder multiplexer replaces less than all of the first plurality of components in the first signal with less than all of the second plurality of components in the second signal. However, Naohiro does disclose the use of multiplexing when combining or replacing signals to form a single composite signal (col. 7, lines 47-50; col. 7, line 67-col. 8, line 2; and col. 8, lines 59-65). Naohiro also discloses that the system is an asynchronous system (col. 6, lines 40-57). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the user interface comprise an asynchronous feeder multiplexer where the asynchronous feeder multiplexer replaces less than all of the first plurality of components in the first signal with less than all of the second plurality of components in the second signal in order to obtain a single signal that comprises the signal components of the two signals that have the best normality.

6. Regarding claim 28, Naohiro discloses that the asynchronous feeder multiplexer includes protection logic adapted to compare the first cell with the second cell to select a cell to be output (ref. 5-8 and col. 7, line 43-col. 8, line 7).

7. Regarding claim 29, Naohiro discloses that the protection logic selects for the output the cell which remains after a loss of signal for at least one of the first cell and the second cell has been detected (ref. 5-8 and col. 7, line 43-col. 8, line 7).

8. Regarding claim 30, Naohiro discloses that the protection logic selects for the output the cell having a best signal quality (ref. 5-8 and col. 7, line 43-col. 8, line 7).

9. Regarding claim 31, Naohiro discloses that the cell to be output includes at least one of the first plurality of components and at least one of the second plurality of components (ref. 5-8

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and col. 7, line 43-col. 8, line 7) where the user interface package selects whichever portion of the first or the second signal is closest to normality in order to form the output signal.

10. Regarding claim 32, Naohiro discloses that the selected components in the cell for output are selected based on a best signal quality of the components (ref. 5-8 and col. 7, line 43-col. 8, line 7).

11. Regarding claim 33, Naohiro discloses that the remote terminal is a portion of a network (Fig. 1 and col. 6, lines 40-58).

12. Regarding claim 34, Naohiro discloses that the network is a synchronous optical network (SONET) (col. 1, lines 10-25 and col. 2, lines 52-60).

13. Regarding claim 35, Naohiro discloses that the network employs at least an STS-1 optical bandwidth (col. 7, lines 35-43).

14. Regarding claim 36, Naohiro suggests that the network includes metallic channels in the first path and the second path since Naohiro discloses that the inventive system overcomes the limitations of the optical ring network and since Naohiro does not specifically claim an optical network in the claims (col. 2, lines 52-60 and col. 11, line 65-col. 12, line 11).

15. Regarding claim 37, Naohiro does not explicitly disclose that the network employs DS3 bandwidth; however, Naohiro does disclose that the network employs a bandwidth (col. 7, lines 35-43). It is generally considered to be within the ordinary skill in the art to adjust, vary, select, or optimize the numerical parameters or values of any system absent a showing of criticality in a particular recited value. The burden of showing criticality is on applicant. In re Mason, 87 F.2d 370, 32 USPQ 242 (CCPA 1937); Marconi Wireless Telegraph Co. v. U.S., 320 U.S. 1, 57 USPQ 471 (1943); In re Schneider, 148 F.2d 108, 65 USPQ 129 (CCPA 1945); In re Aller, 220

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F.2d 454, 105 USPQ 233 (CCPA 1055); In re Saether, 492 F.2d 849, 181 USPQ 36 (CCPA 1974); In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977); In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Since Naohiro discloses a bandwidth, it would have been obvious to one of ordinary skill in the art to use any bandwidth, including DS-3, absent a showing of criticality by Applicant.

16. Regarding claim 39, Naohiro does not expressly disclose outputting the first cell including replaced components on at least one of the downstream path and the upstream path. However, Naohiro does disclose outputting a cell (OAM) including replaced components (replace dropped cell) on at least one of the downstream path and upstream path (col. 8, lines 59-65). Naohiro also discloses transmitting cells in a ring network in a downstream path and upstream path (Fig. 1). Finally, Naohiro discloses that the invention allows for fine switching (col. 3, lines 21-24). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to output the first cell including replaced components on at least one of the downstream path and the upstream path in order to allow fine switching of components of cells in the upstream and downstream path.

17. Regarding claim 40, Naohiro discloses that the replacing is determined by a signal characteristic of the first plurality of components and the second plurality of components (ref. 5-8 and col. 7, line 43-col. 8, line 7).

18. Regarding claim 41, Naohiro discloses that the signal characteristic is a best signal quality (ref. 5-8 and col. 7, line 43-col. 8, line 7).

19. Regarding claim 42, Naohiro discloses that the signal characteristic is a remaining signal after a signal loss (ref. 5-8 and col. 7, line 43-col. 8, line 7).

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***Conclusion***

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 7:00-4:30 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DJR

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